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Editors

K. J. Bathe

B. H. V. Topping

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Volume Contents and Author Index



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aims and scope of the journal

The objective of this journal is to communicate recent advances in the development and use of computer methods for the solution of scientific and engineering problems related to hydrospace, aerospace and terrestrial structures. The word structures is interpreted in the broadest sense. The journal is intended to be of interest and use to researchers and practitioners in academic, governmental and industrial communities.

The range of appropriate contributions for the journal is very wide. The scope of the journal includes papers on mathematical modeling and computer methods in all areas of mechanics including structural, fluid, soil and fracture mechanics as well as heat transfer, non-linear dynamics and chaos. Also the solution of problems concerned with multiple media is relevant to the journal including fluid-structure and soil-structure interaction problems. The applications may come from

any field of science or engineering including civil, mechanical, ocean, aerospace, automotive, environmental and materials engineering.

The scope also embraces computer-aided design including visualization, idealization, sensitivity and optimization methods; and the journal is concerned with the publication of new computational techniques as used on new and emerging computer hardware.

Papers describing advanced or innovative applications of computers to practical engineering problems are also welcome.

Although the journal will primarily contain authoritative papers describing recent research achievements, it will as well include survey papers reviewing the state-of-the-art in the fields described above, and educational articles of general value to the field.

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| V. B. Gantovnik,
C. M. Anderson-Cook,
Z. Gürdal and L. T. Watson | 2003 | A genetic algorithm with memory for mixed discrete-continuous design optimization |
| J. Kim, J. Cho, U. Lee and
S. Park | 2011 | Modal spectral element formulation for axially moving plates subjected to in-plane axial tension |
| H. Sun, S. Di, N. Zhang,
N. Pan and C. Wu | 2021 | Micromechanics of braided composites via multi-variable FEM |
| K. El Bikri, R. Benamar and
M. Bennouna | 2029 | Geometrically non-linear free vibrations of clamped simply supported rectangular plates. Part I: the effects of large vibration amplitudes on the fundamental mode shape |
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| H. Bahai and F. Aryana | 2053 | Erratum to "Design optimisation of structures vibration behaviour using first order approximation and local modification" [Computers and Structures 80 (2002) 1955-1964] |
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| D. Chandra | 2067 | Quantification of force re-distribution during deck replacement in a cable-stayed bridge |

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| C. Topkaya and
E. B. Williamson | 2087 | Development of computational software for analysis of curved girders under construction loads |
| A. Le van, G. de Saxcé
and P. Le Grogneç | 2099 | General formulation for local integration in standard elastoplasticity with an arbitrary hardening model |
| X. F. Yuan and S. L. Dong | 2111 | Integral feasible prestress of cable domes |
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